WHAT IS CLAIMED IS:

1. A generating device, comprising:

a wheel rim;

a coil unit mounted on the wheel rim;

a rotor mounted in the coil unit; and

an impeller structure mounted on an end of the rotor to rotate therewith.

2. The generating device in accordance with claim 1, wherein the impeller structure is provided with a plurality of blades.

3. The generating device in accordance with claim 2, wherein the blades of the impeller structure are arranged in a radiating manner.

4. The generating device in accordance with claim 2, wherein each of the blades of the impeller structure is substantially arc-shaped.

5. The generating device in accordance with claim 2, wherein each of the blades of the impeller structure has a distal end formed with a wind shear edge.

6. The generating device in accordance with claim 1, wherein the rotor and the impeller structure are co-axial with the wheel rim.

7. The generating device in accordance with claim 1, wherein the coil unit is fixedly mounted on a central portion of the wheel rim.

8. The generating device in accordance with claim 1, further comprising a plurality of light emitting members each mounted on the wheel rim and each electrically connected to the coil unit.

9. The generating device in accordance with claim 1, wherein when the wheel rim is rotated, the coil unit is rotated with the wheel rim synchronously, while the rotor and the impeller structure are driven to rotate by the coil unit and are not rotated with the wheel rim synchronously due to an eddy resistance effect of a wind power, thereby producing a velocity differential between the coil unit and the rotor.

10. The generating device in accordance with claim 9, wherein the coil unit and the rotor are rotated at different velocities, so that the coil unit produces a magnetic variation between the coil unit and the rotor to provide a generating effect.